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NEWSLETTER OF THE LONDON CHAPTER,
ONTARIO ARCHAEOLOGICAL SOCIETY

LONDON CHAPTER OAS

December, 1986 86-9

Late Woodland Occupations of Southeastern Middlesex County

On January 8th, 1987, **Mr. Jim Keron** will speak to the Chapter. Jim will discuss some of the work he has carried on in southeast London and southeast Middlesex County over the last few years, some of which formed the basis of his recently completed honor's thesis for the Department of Anthropology at the University of Waterloo. Much of what Jim will be discussing relates to the City of London so come out and hear what Jim has to say about your own "backyard!" As always, the meeting is at the Museum of Indian Archaeology, starting at 8 P.M. See you there.

oh yes,

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MERRY CHRISTMAS AND A HAPPY NEW YEAR FROM THE LONDON CHAPTER EXECUTIVE AND THE STAFF OF KEWA!!!!!!

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Chapter Executive

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20 Picton Street, London

Vice-President
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75 Fiddler's Green, London

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Treasurer
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762 Elm Street, St. Thomas

EXECUTIVE REPORT

The London Chapter executive is pleased to announce that it now has a formal office from which to operate. During the recent re-organization of 55 Centre Street, a room in the back of the building was made available to us. The Executive then went out and purchased a filing cabinet and office supplies, collected all Chapter documentation together from their various sources, and filed the material. We are now organized, with accessable files, computer, desk and chairs! Members are welcome to visit the Chapter's office, as well as use the facilities. Access to most Chapter files is open and anyone wishing to rummage through them need only notify us they wish to drop by. Also, all formal liaison should now be sent to 55 Centre Street (N6J 1T4), and not to individual executive members.

Occasional Publications #1 continues to draw sales, despite the fact that efforts to market the volume to a larger audience has just been initiated. Occasional Publication #2 has just been sent to the printers, and we trust that they will be able to get this issue out sooner than the previous one. Also, Neal Ferris, our Occasional Publication Series Editor, announced that he has been busy lining up individuals willing to sit on an Editorial Board which will assist the editor in reviewing and providing critical commentary on submissions to the series. So far David Brose of the Cleveland Museum of Natural History, Chris Ellis of Waterloo University, Mike Spence of the University of Western Ontario and Bruce Trigger of McGill University have all agreed to sit on this board. Bill Fox has also been offered a position. Only Bill Finlayson of the Museum of Indian Archaeology has had to decline the offer due to other commitments. Neal hopes to line up a few more individuals in the near future in order to round out the areas of representation on the board.

It looks as though the present executive will continue to serve the Chapter for 1987. Unfortunately, the Chapter still needs a secretary. Anyone mildly interested in serving as Chapter secretary for 1987 should please consider the following "classified":

WANTED: ONE SECRETARY

Duties:	These include taking minutes of both executive and monthly meetings, as well as handling general inquiry correspondence.
Qualifications:	An ability to read, write and understand the English language is a definite asset! Ability to handle flustered executive members through a crisis couldn't hurt either.
Salary:	Ha ha ha!
Perks:	Access to Chapter facilities and your name on everything we publish. Thankful fellow executive members can be persuaded to buy you the occasional refreshment.

Respond in person, phone, or by mail to the existing executive before the upcoming business meeting.

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The Museum Of Indian Archaeology Announces The Following Exhibition

"Elders of the Anishinabe"
photographs by E. Jane Mundy
December 5, 1986 - Febuary 1, 1987

This exhibit consists of 30 black and white photographs of Ontario Ojibway culture, as reflected in the portraits of Native elders from Manitoulin Island and the North Shore.

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SOCIAL REPORT

At the back of this issue is a questionnaire regarding a possible Chapter bus trip in 1987. Please fill it in and return it as soon as possible so that we can respond quickly. We need more than returned questionnaires, however. The Chapter also needs 2 people willing to act as an organizing committee and help orchestrate all the details. One person would be expected to handle accommodation and transportation arrangements, while the other could book tours, events and arrange contact people. Without such help, there is little chance of our trip being organized. If you are interested in helping, please contact Linda Gibbs as soon as possible.

Thursday, Feburary 11, 1987 will be our annual member's night. Any member wishing to discuss some aspect of his or her activities (whether it is educational or not!) should notify Neal Ferris or Linda Gibbs as soon as possible. As always, speakers will have 15 to 20 minutes to present. In order to ensure that member's night does not run too late, a maximum of four speakers will be accepted. Please let us know as soon as possible, so that we can advertise the event for our January issue of KEWA.

The Chapter would like to congratulate members Paul Lennox, Christine Dodd and Carl Murphy regarding the recent release of their publication on the Wiacek site, through the Ministry of Transportation and Communications. Paul has provided us with a short advertisement for the volume:

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HOT OFF THE PRESSES AND READY FOR PURCHASE!

THE WIACEK SITE; A LATE MIDDLEPORT COMPONENT SIMCOE COUNTY, ONTARIO

By: Paul Lennox, Christine Dodd and Carl Murphy

1986, +236 pages, 62 tables, 37 figures, 2 appendices. Price: $10.00

The Wiacek Site, a small Middleport village located near the city of Barrie, Ontario, was salvage excavated by the Ontario Ministry of Transportation and Communications in 1983. This site report comprehensively details the recovered settlement patterns, artifact, floral, and faunal assemblages, providing considerable insight into prehistoric Iroquoian adaptation to Simcoe County during its 15th century occupation.

Now available from: The Ontario Government Bookstore, 880 Bay St., Toronto. Or write to Publication Services Section, 5th floor, 880 Bay St. Toronto Ontario M7A 1N8, (416) 965-6015. Toll free long distance 1-800-268-7540, in area code 807 dial 0-Zenith-6200. Mastercard and Visa accepted. Cheques and money orders payable to the Treasurer of Ontario. Prepayment required.

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Saturday December 13th, at the home of Carl Murphy and Judith Stewart, the Chapter will hold its annual Christmas party and annual business meeting. Don't miss the last chance to socialize for the 1986 season!

Of course, since it is Christmas time, that can only mean one thing...membership costs for 1987 are now due: $12.00 individual, $14.00 family, and $16.00 institutional. Enclosed are handy membership envelopes for payment. Please note, as always, that Chapter members should also subscribe to the main body of the Ontario Archaeological Society. Main body dues are $16.00 individual, $18.00 family and $20.00 institutional. Main body dues can be paid to the Chapter.

EDITOR'S NOTE

The following is a report by Mike Gibbs, Chairman of the Chapter's Public Advisory Committee. As KEWA readers know, our Public Advisory Committee was initiated over a year ago in order to provide a liaison with the community of London and vicinity. One of the Committee's first tasks was to critique and review an amendment to the City of London's Offical Plan, which would define the City's mandate concerning heritage resources. In particular, the Committee assisted in having archaeology identified as a specific type of heritage resource in the amendment.

Subsequent to the passing of that amendment, the Committee has been trying to become active in the City planning process. Constant communications with the city has given the Committee (and through it the Chapter) an education in the workings of City Hall. Moreover, in recent months the Chapter itself has been asked by community groups for its opinion regarding certain proposed local developments. One case concerned a proposed development in the Pond Mills area, where the Chapter wrote to the city on behalf of the community group, and strongly encouraged an assessment of the property in question. Such an assessment apparently has been carried out, and, for the moment, the Chapter is satisfied that the developer has acted responsibly regarding potential archaeological resources on their property. Such response early in the planning process is encouraging, and we hope that such action will, in the future, become the rule and not the exception.

Mike's report outlines the pertinent sections of the new amendment, and provides an historical sketch of activity by the committee (primarily towards the direction of getting an institutional position on L.A.C.A.C.), up to the time of printing this KEWA. His report is interesting in providing a blueprint of how to deal with local City Council regarding matters archaeological.

A Background Note: Bob Pearce, of the Museum of Indian Archaeology and Chapter member, was just recently recommended for L.A.C.A.C. as a member from the community. We congratulate Bob for his appointment and feel that this first step towards archaeological representation on L.A.C.A.C. is good, however the Chapter is also happy that we have just been given a permanent institutional position on L.A.C.A.C. (which allows the Chapter to appoint a member as its representative). Further, with our appointment archaeological concerns for the community of London will now be represented on L.A.C.A.C. (and through L.A.C.A.C. to the city) by two voices...a great leap from the no representation which had been the case!!

Public Advisory Committee Report

D. Michael Gibbs

On June 16, 1986 the London Municipal Council of the Corporation of the City of London enacted By-Law No. C.P.-472 (1x)-293, alternately known as Offical Plan Amendment No. 323. The intent of the amendment was to directly address heritage concerns within the Official Plan of the City of London, as outlined in section "A" of the amendment:

A. Purpose of the Amendment

The purpose of this Amendment is to set out Council's goals, objectives and policies for the identification and protection of heritage resources. Heritage resources include buildings or structures (or portions thereof), either individually or in groups, which are considered to be of architectural and/or historical significance at the community, regional, provincial, or national level. Archaeological, natural and historic sites may also be considered to constitute heritage resources.

The inclusion of archaeological sites essentially fulfilled the initial mandate of the London Chapter's Public Advisory Committee, which had been established to serve as liaison with other local heritage groups and the city, assisting in the drafting of this amendment. Various sections of the amendment ended up having direct significance to the archaeological community in this city. They are:

Heritage Resources

17.1 Heritage Resource Inventory	The City will prepare and maintain a descriptive inventory of heritage resources within the City of London. The inventory will be based on a set of established criteria relating to the architectural, historical, natural, and archaeological importance of heritage resources.
17.5 Development & Redevelopment	The City will endeavour, through its approval process, to ensure that new development does not affect the integrity or result in the needless destruction of heritage resources. Rather, the City will encourage the integration of heritage resources into development or redevelopment projects and may offer development incentives such as increased density and height in this regard.
17.10 Archaeological Resources	The City will facilitate, wherever practical and feasible, efforts to preserve and excavate historic and pre-historic archaeological resources.
17.12 Heritage Trust Fund	The City may establish a municipal heritage trust fund to provide the financial assistance to protect and restore heritage resources threatened by deterioration, demolition, or excavation.
17.14 Heritage Organizations	The City may appoint a Local Architectural Conservation Advisory Committee under the Ontario Heritage Act to make recommendations on the designation of heritage resources and heritage conservation districts, to advise Council generally on matters pertaining to heritage resources, and to undertake specific duties pertaining to heritage resources as assigned by Council from time to time. The City may also appoint and support heritage foundations and other non-profit organizations having an interest in or a committment to the protection of the City's heritage resources.

The complete text of this amendment is available from the City Clerk's Office in City Hall, and is also on file in the London Chapter's new file system.

The effort the Public Advisory Committee contributed to this process did, in the end, have a positive impact on the amendment (See KEWA 86-3). However, there remained a general feeling by the committee and the executive, after the amendment was passed, that a voice was still needed in City Hall to represent the archaeological concerns of the community on a day-to-day basis. After discussions with City representatives from L.A.C.A.C. and the Planning Department, it was decided that the Chapter should seek to get an institutional appointment on the City's Local Architectural Conservation Advisory Committee (L.A.C.A.C.). By obtaining such an appointment, the Chapter would be able, through its representative on L.A.C.A.C., to formally aid the City of London in enacting heritage planning and policy making, providing archaeological expertise and personnel.

As a result of this decision, the Public Advisory Committee wrote a letter to Mayor Tom Gosnell of the City of London on May 22, 1986.

> ...we would ask that the L.A.C.A.C. planning committee, and the Planning Department recommend an archaeological representative or representatives be appointed by City Council to L.A.C.A.C., in order to reflect the heritage concerns of the archaeological community...

During the course of the summer no response regarding this request was received. A follow-up letter was sent to Mayor Tom Gosnell dated August 22, 1986.

> Further to our letter of May 22, 1986 the London Chapter of the Ontario Archaeological Society Incorporated is requesting information of the proper procedures on how to apply for representation on the L.A.C.A.C. committee.
>
> We feel that our community organization would make a valuable contribution to this committee given our ten year history of publications and public participation projects involving the salvage, excavation and survey of over fifty sites in the London area.
>
> Please contact me at your convenience if you require additional information on the Chapter's qualifications and/or detailed knowledge of the archaeological issues that will effect the City as per its Official Plan Amendment No. 323 involving heritage resources. Please find enclosed copies of KEWA, Newsletter of the London Chapter, Ontario Archaeological Society.
>
> Sincerely,
> D. Michael Gibbs, Chairman,
> Public Advisory Committee

This letter generated a get deal of follow-up correspondence on the part of both the Chapter and the City. Our request has spent a number of months bouncing from committee to Council. In early November, frustrated by the complex number of steps our request had taken, I asked the City Clerk to provide a chronology of the whole process. The Assistant City Clerk responded on November 4th:

> Re: Representation by London Chapter of the Ontario Archaeological Society on LACAC
>
> ---
>
> In response to your telephone call, the following is a chronology of events relating to your Society's letter dated August 22, 1986 addressed to the Mayor:

1. Board of Control at its meeting on September 10 considered Society's request for representation on LACAC and recommended to Council that the request be noted and filed.
2. Council at its meeting on September 15, 1986 adopted the recommendation of the Board of Control to note and file the request (see my letter to you of September 18, 1986 sent previously).
3. LACAC at its meeting on September 18, 1986 adopted a recommendation asking the Council to reconsider its action in having filed your request for representation on LACAC.
4. The Council at its meeting on October 6, 1986 did not deal with LACAC's reconsideration recommendation but referred the matter back to LACAC with a request that the group memberships on LACAC be re-examined in light of the present lack of representation of two groups, namely, the London Council of Women and the Society of Architects.
5. The referred back matter was considered by LACAC at its meeting on October 16, 1986 and it has reported to the Council that the matter of group memberships has been referred to LACAC's Executive Sub Committee for consideration and report at the next LACAC meeting (to be held on November 29, 1986).

As I explained to you in our conversation, the matter is now back in the hands of LACAC and it may be that a recommendation will go forward from the LACAC meeting on November 20th to the Planning Committee and thereafter to the Council.

I trust that this information will be of assistance to you.

R.J. Tolmie
Assistant City Clerk

At the November 20th meeting of L.A.C.A.C., Bob Mayer and Paul Antone gave a presentation to L.A.C.A.C., winning a very strong recommendation from the committee:

Your Committee Recommends:

That the London Chapter of the Ontario Archaeological Society be added to the membership of LACAC, and that the Chapter be asked to nominate its representative on the Committee; it being pointed out that, in the past few years, archaeology has come into the forefront of heritage activities and interest; and it being noted that the Advisory Committee would now be composed of seven (7) Members at Large and nine (9) group representatives. This is a reiteration of the recommendation contained in 1/8/LACAC which Council referred back on October 6, 1986 (35.1.1)

Following that meeting, L.A.C.A.C. Chairman Bill Hitchins reported this recommendation to the Planning Committee on December 8, 1986, whose plea won a positive recommendation from the Planning Committee, to be passed on to Council for consideration at their meeting of December 15, 1986. Prior to that meeting, however, the L.A.C.A.C. proposal was then considered on the December 10th meeting of the

City's Board of Control. This Board consists of elected officials: Mayor Tom Gosnell and four controllers. The four controllers are J. Burghardt, A. Cartier, J. Fontana, and O. Zamprogna. At their meeting the Board of Control decided to notify Council that it did not concur with the Planning Committee's approval of the L.A.C.A.C. recommendation (at least three members of the Board needed to have rejected the proposal for Board of Control to have officially adopted that view). This essentially meant that Board of Control was recommending to Council that this should not be adopted. However, on Monday December 15, at the Council meeting, Planning Committee recommendation #1 (essentially the same recommendation L.A.C.A.C. had brought to the Planning Committee the Monday previous) was adopted by Council. Only controllers Fontana and Zamprogna voiced objections, but not until after the recommendations had passed.

On Tuesday morning following the Council meeting I discussed the matter with Assistant City Clerk R.J. Tolmie, who confirmed that Planning Committee recommendation #1 was passed by Council. This was followed by a formal letter of notification on December 16, sent to the London Chapter President by City Clerk K.W. Sadler. The Chapter now eagerly awaits Bill Hitchins response and the terms of reference for this appointment. As soon as possible following this the executive will consider chapter members who might be interested acting as representative to L.A.C.A.C., and appoint said member immediately. Our 18 month effort to get onto L.A.C.A.C. is now over, and we have been successful. The easy part is over, now the real work begins!

Acknowledgements

I would like to thank my fellow committee members, Bob Mayer and Paul Antone, for their effort and expertise, as well as Janet Hutten (L.A.C.A.C. and London Chapter member). Thanks also to Bill Hitchins who spoke on our behalf to the City, and to the Chapter Executive for providing us with such a clear mandate, and most especially thanks to M.C.C. regional staff C. Dodd and I. Kenyon, who provided well needed instructions in diplomacy. Most of the credit for our efforts, however, must go to the Chapter's membership, who (as a group and individually) have, over the years, provided an enormously clear record of achievement and committment to both our community and archaeology.

EDITOR'S NOTE, PART 2

No, we did not forget to include a research article in this month's issue of KEWA. The following is provided to us by John MacDonald, McMaster University Master's candidate and presently employed by the Regional Municipality of Waterloo as assistant to their Regional Archaeologist. John's paper discusses some radiocarbon dates he recently received on material he had submitted from Varden, a multi-component site largely dominated by Princess Point and Princess Point transitional to Glen Meyer occupations on Long Point. His report should help in dating Princess Point and the transition to "Pick-Meyer", a topic of great importance in understanding Iroquoian introduction to and development in this province, as well as being a topic that still generates some considerable debate amongst southern Ontario prehistorians.

NEW DATES FOR OLD CHRONOLOGIES: RADIOCARBON DATES FROM THE VARDEN SITE

John D.A. MacDonald

Introduction

For southwestern Ontario prehistory the development of the Princess Point culture into the Glen Meyer is an accepted scenario (Stothers 1977; Noble and Kenyon 1972; Fox 1982; Trigger 1985). However, the relative time for this cultural transition, along with the placing of Princess Point in time, is still debated: "[The] Princess Point culture is dated at A.D. 200 - 500 by Noble and Kenyon (1972), at A.D. 600 - 900 by Stothers (1977), and from A.D. 500 - 800 by Fox (1979 pers. comm.)" (Molto 1983: 49). Molto suggests that an even earlier date of A.D. 400 for the beginings of the Late Woodland Culture "...is not unreasonable given that it coincides with the earliest evidence of horticulture..." (1983: 54).

Much of this debate stems from the particular author's placement of the Porteous site on the time scale, as this site is seen to be transitional from Princess Point to Glen Meyer. Stothers (1975) had originally dated Porteous at A.D. 912 ± 49, which fit well with the accepted date of A.D. 1000 for both the Glen Meyer and Pickering; "...branches [which] were firmly established in Southern Ontario" (Wright 1966: 22) by this time. Porteous has also been dated to circa A.D. 700 by Noble and Kenyon (1972), thereby pushing back the start-up date for Glen Meyer by at least 300 years.

Both the A.D. 912 and A.D. 700 dates for Porteous have been rejected by Timmins (1985) in his calibration analysis of Iroquoian radiocarbon dates. Following his criteria (as outlined below), Timmins concludes that a "...new average, based on two remaining dates, is A.D. 790 ± 70, which calibrates to A.D. 830 ± 75" (Timmins 1985: 70). However, this date places the Porteous site earlier in time than four other late Princess Point sites which Timmins had calibrated to circa A.D. 875.

Establishing a date for Porteous does not simply set a time frame for the close of Princess Point and beginning of Glen Meyer. Dating Porteous also sets a time frame for the Pickering branch development, since Pickering is seen to be a parallel development with Glen Meyer (Wright 1966: 22). The beginning period for Pickering is also of some question. Fox (1980) has reviewed researchers (Noble 1975; Reid 1975) who have rejected later dates for the Pickering sites of Miller and Boys for earlier ones based on the early A.D. 700 Porteous date and the assumption of parallel development. Kapches (1981) has rejected a date of A.D. 885 ± 110 (which calibrates to A.D. 905 ± 125), for the Auda site because Auda seriates into early Pickering and "...probably occurred slightly before that of Porteous" (Kapches 1981: 80). Auda was consequently dated to circa A.D. 700.

Radiocarbon dates derived from the multi-component Varden site, located on Long Point, Lake Erie, should add fuel to this discussion. Two Princess Point components, a transitional Princess Point - Glen Meyer component, and three late Iroquoian vessels (Figure 3) were recovered through excavations during the 1983 field season (MacDonald 1986). As well, cord-wrapped stick decorated sherds, and a late Archaic Innes-like point (cf. Lennox 1982) were retrieved from the eroding beach area.

Site Description

The Varden site (AdHa-1) is located approximately six kilometers from the eastern tip of Long Point on its north shore (Figure 1). The site is situated on a sand knoll overlooking Anderson Pond to the west and Gravelly Bay to the north and east. On all other remaining sides the knoll is bordered by marsh.

Most of the site lies to the east of the highest point of the knoll, which was 2.4 meters above mean water level in August 1983 (Figure 2). The knoll slopes gently to the east and west and more abruptly to the south towards the marsh. Erosion has created steep banks along the north edge. The knoll is formed almost entirely of sand and consequently wave action from Long Point Bay has substantially altered the face of the shore through erosion. From a third to as much as half of the original site area may have been lost to erosion prior to excavation. By May 1986, very little of the Varden site remained intact (W.A. Fox, personal communication). Moreover, all but one of those sites identified by Fox (1985) during a Long Point survey in the early fall of 1984 had succumbed, in one way or another, to beach erosion by the spring of 1986.

The observed stratification of the Varden site implied that wind and water had deposited as much as 90 centimeters of sand over some of the cultural layers. This pattern of deposition suggests that, until recently, most of the site had been saved from wind erosive forces by the continual deposition of sand. Each level of the site was discernable by soil colour and texture, as well as by artifact distributions. These layers were identified and excavated separately. The uppermost layer was labelled Level 1, and so on down to the bottom layer, or Level 4.

Two hundred and thirteen square meters were excavated, which represented from 50 to 60 percent of the extant site area. Each square was dug to an average depth of 70 centimeters. Of the total of 150 m^3 excavated, 1.11 m^3 were taken for soil flotation. Some 54 samples representing 35 proveniences were processed.

Faunal and plant remains from Varden indicate a warm season occupation, yet all occupations associated with subsistence data (ie. Levels 1 through 4) reflected a primary exploitation of the oil rich burbot (Lota lota L.). This can be illustrated graphically by pointing out that approximately 90% of the 300,000 faunal elements recovered from the Varden soil samples are burbot.

Radiocarbon Dating

Seven radiocarbon dates were derived from six carbon samples. These samples were processed at the McMaster University Tandem Accelerator, using a procedure outlined in Nelson et al (1986). Because the accelerator measures 13C and 14C intensities, rather than counting beta decays, much smaller carbon samples can be processed: 50 to 3000 ug carbon with this accelerator compared to the usual 2 to 5 grams of carbon required for normal B-counting methods. The small sample size used with the accelerator now means that the carbon adhering to pottery can provide just as suitable a sample as the more traditionally used wood charcoal. Dating the carbon crust from pottery also avoids any uncertainty of association with the cultural event, which can be problematic when dating wood charcoal (Browman 1981).

Three wood charcoal samples and three scrapings of pottery carbon crust were submitted for radiocarbon dating. One sample was processed twice (RIDDL# 119 and 311) as the original resulting date of 400 B.C. is exceedingly early for Princess Point.

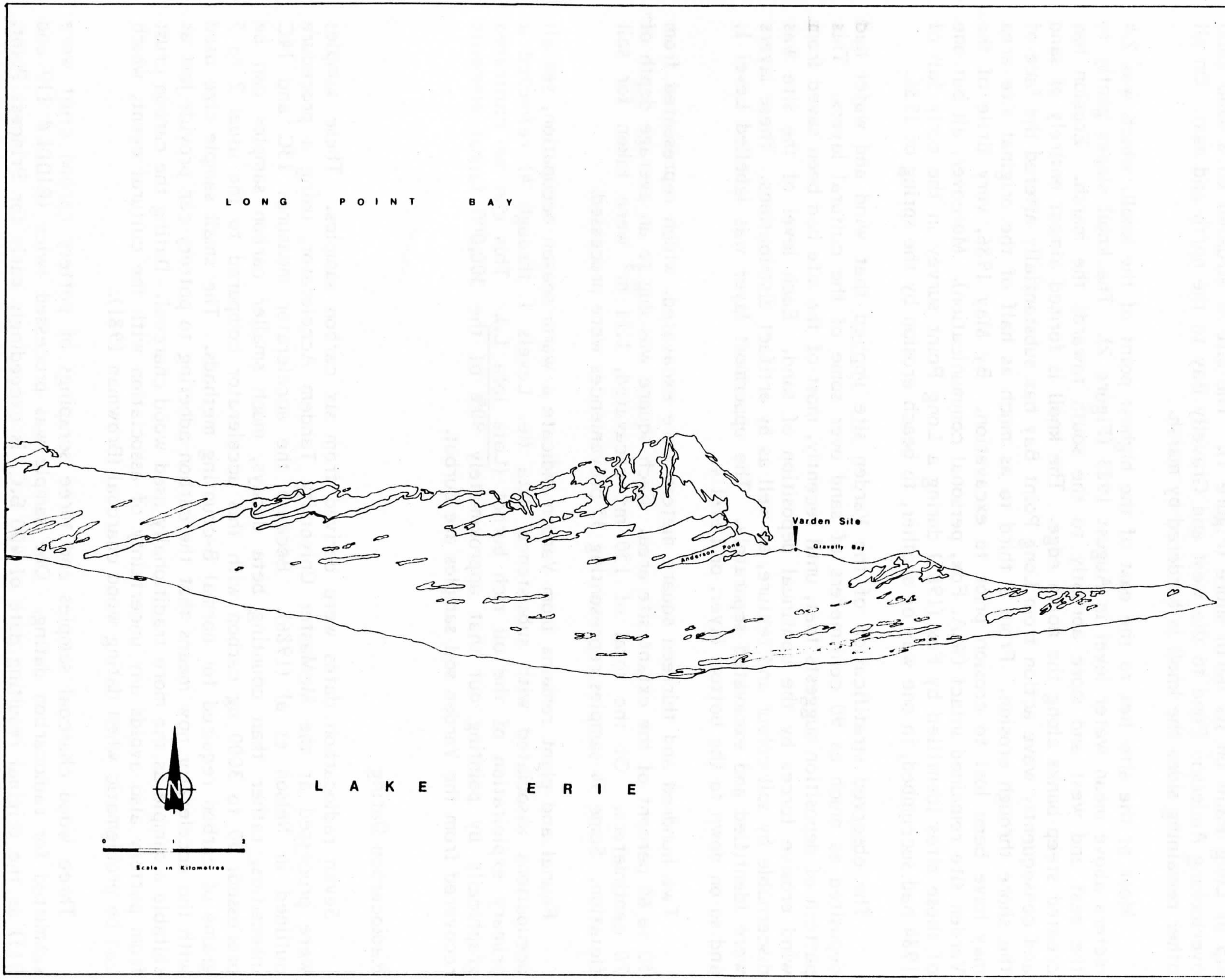

Figure 1: Location of the Varden Site (AdHa-1) Near the Tip of Long Point.

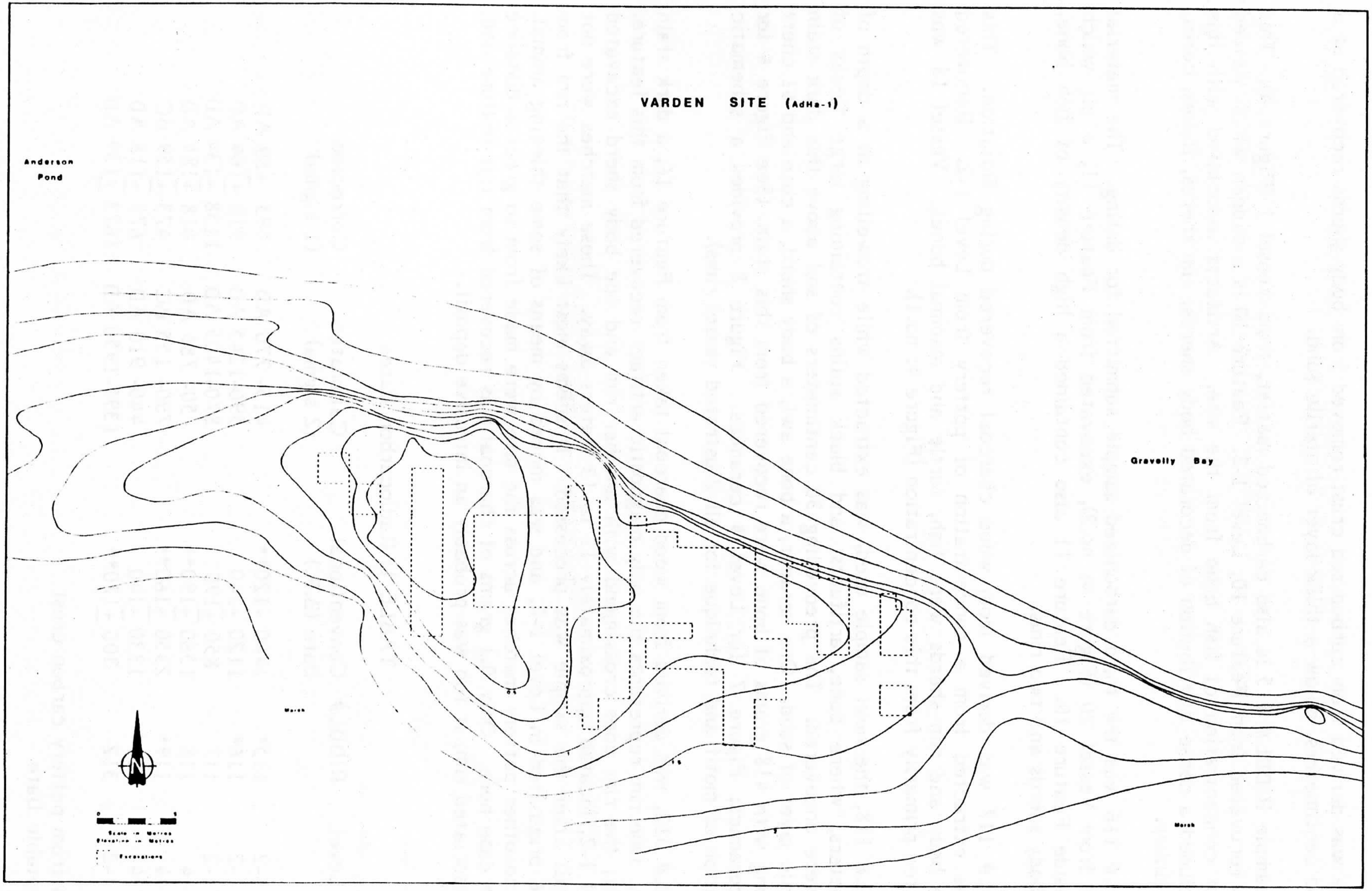

Figure 2: The Varden Site Excavation Area.

This sample was derived from carbonized crust removed from body sherds recovered at a depth of 65 centimeters, below a thick layer of sterile sand.

The sample RIDDL# 115 is also carbonized matter, from Vessel 1 (Figure 5). This vessel was recovered from Feature 10, Level 1-2. Feature 10 is a midden which yielded the highest concentration of fish bone from the site. Artifacts associated with this midden included a dense distribution of decorated body sherds, rim sherds, flakes, cores, and a net sinker.

RIDDL# 116 was the third carbonized sample submitted for dating. The material was taken from Vessel 20 (Figure 4: no.2), excavated from Feature 11, a pit which centers inside Feature 10. Feature 11 also contained a high density of fish bone, numerous body sherds and two rims.

RIDDL# 117 was derived from wood charcoal recovered during flotation. This sample was extracted from a concentration of pottery from Level 1-2. Recovered among the body and rim sherds were fish, turtle and mammal bones. Vessel 18 was reconstructed primarily from this concentration (Figure 4: no.1).

RIDDL# 118, the next sample used, was extracted while trowelling at a depth of 63 centimeters, where bone, artifacts, and black stains containing large flecks of charcoal were uncovered. The preceeding 30 centimeters of soil above this dark stain was a sterile layer of sand. One scraper, a bone awl, a body sherd, a core and 61 chert flakes, along with 418 grams of bone were recovered from this stain. (See Figure 6 for Level 3 ceramics; Figure 7 for Level 4 ceramics. Figure 8 provides a schematic representation of motif and technique for all illustrated vessel rims).

RIDDL# 312, was derived from wood charcoal taken from Feature 16, a dark stain in Level 4. One rim represents the only diagnostic artifact recovered from this feature. Fortunately, the rim does cross-mend with another rim and one body sherd excavated from Level 1-2, located approximately 12 to 13 meters away. These matches were not noticed until after the sample was processed. It seems most likely that the rim from Feature 16 originated in Level 1-2, and was moved by means of some thieving animal. Certainly no other pottery matches across the site were made from so great a distance as was the case here. Only 0.1 grams of charcoal was recovered from this feature and, like the associated rim, it too was probably an intrusive deposit.

TABLE 1: Radiocarbon Dates

Unit	Level	RIDDL#	Conventional Date (B.P.)	Calibrated (2 sigma)	Corrected (1 sigma)
80-97	1-2	115*	1440 ±120**	415- 770 AD	593 ±89 AD
80-98	1-2	116*	1120 ±240	590-1245 AD	918 ±164 AD
90-91	1-2	117	850 ±190	870-1405 AD	1138 ±134 AD
88-92	4	118	1560 ±190**	50- 785 AD	418 ±184 AD
96-97	4	119*	2350 ±160**	790- 155 BC	473 ±159 BC
96-97	4	311*	1330 ±140	440- 910 AD	675 ±118 AD
95-95	1-2	312	300 ±170**	1395-1950 AD	1673 ±139 AD

* Derived from pottery carbon crust
** Unacceptable Date

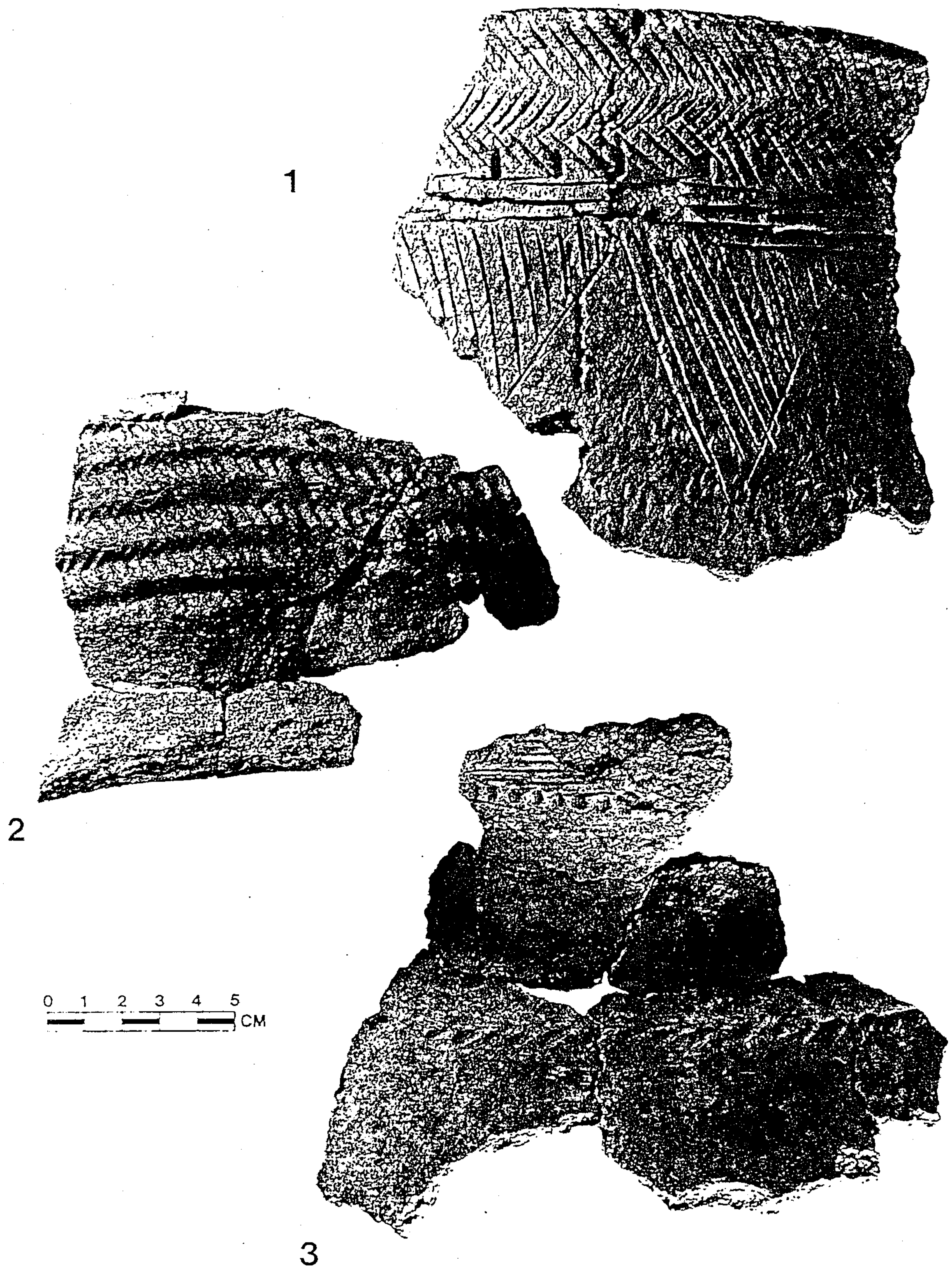

Figure 3: Post-Princess Point Ceramics Recovered From the Varden Site.
1- Glen Meyer: Vessel 15, Level 1-2.
2- Middleport: Vessel 7, Level 1-2.
3- Prehistoric Neutral: Vessel 8, Level 1-2.

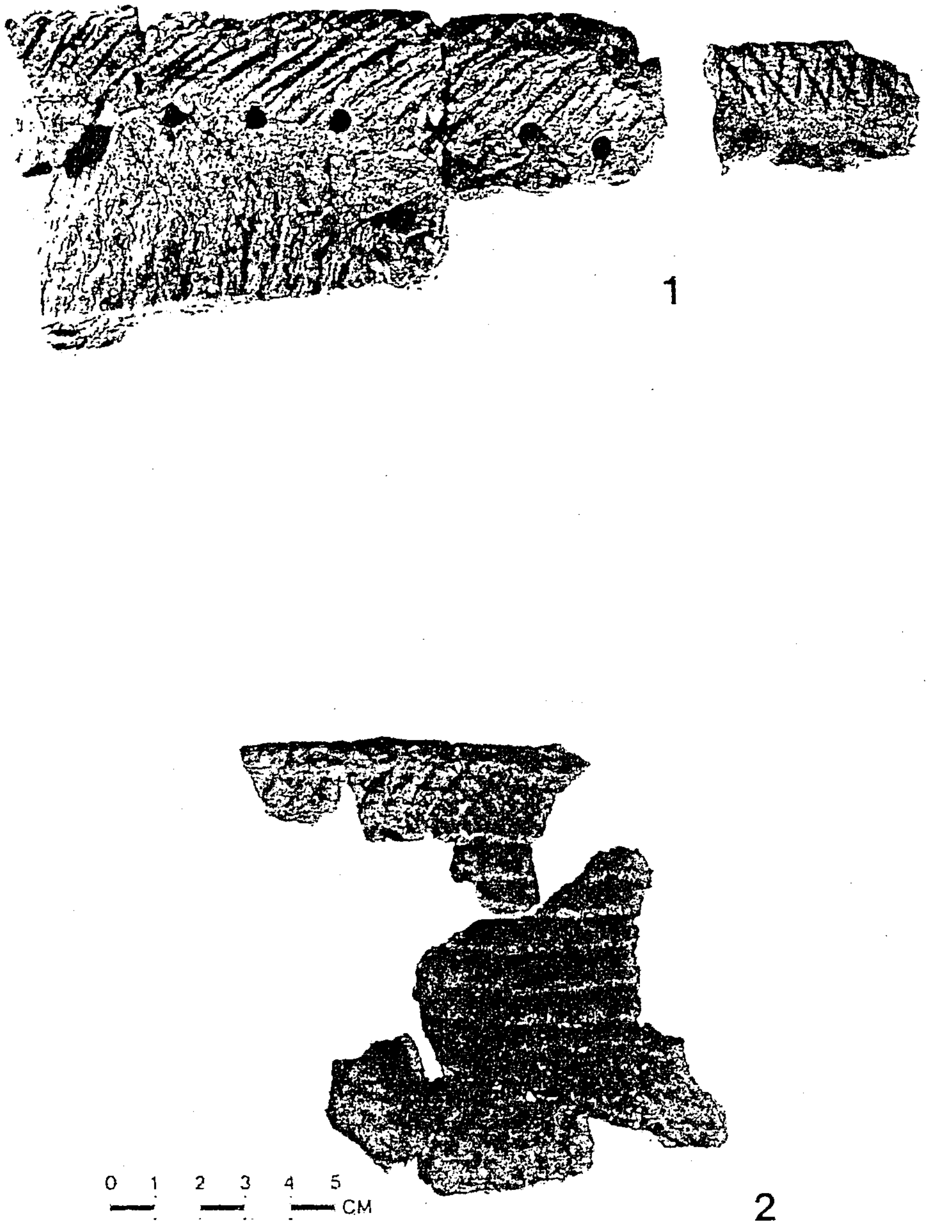

Figure 4: Princess Point Ceramics, Level 1-2.

1- Vessel 18: Suture stamped on exterior, lip, interior (interior band criss-crossed). Exterior punctates (RIDDL# 117: A.D. 1138 ±134).

2- Vessel 20: Cord-wrapped stick on exterior, lip, interior (3 bands exterior). Exterior punctates (RIDDL# 116: A.D. 918 ±164).

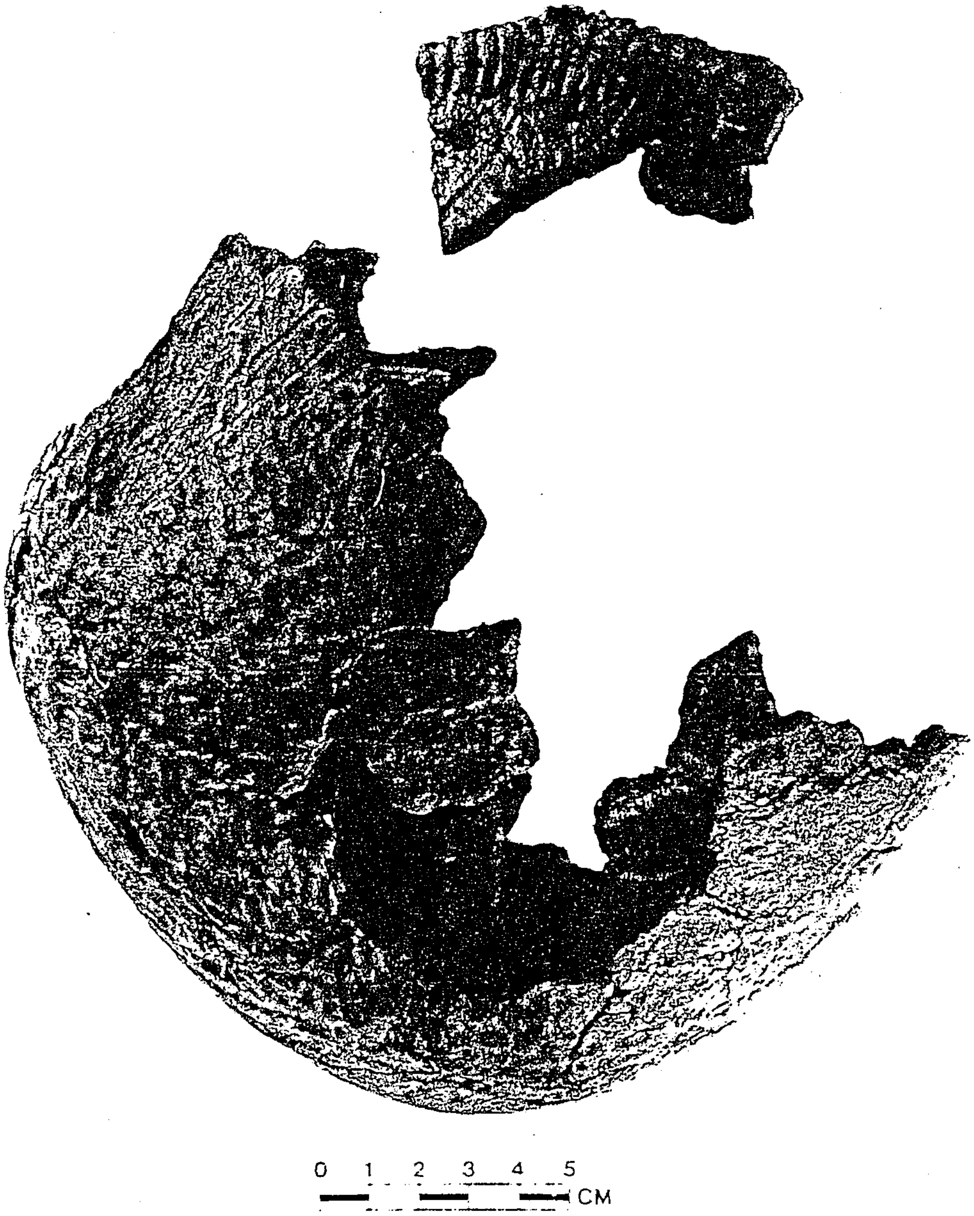

Figure 5: Princess Point Ceramics, Level 1-2.
Vessel 1: Linear stamped on exterior, lip, interior (interior fingernail impressed band below linear stamp). Exterior Punctates, incipient castellation (RIDDL# 115: A.D. 593 ±89).

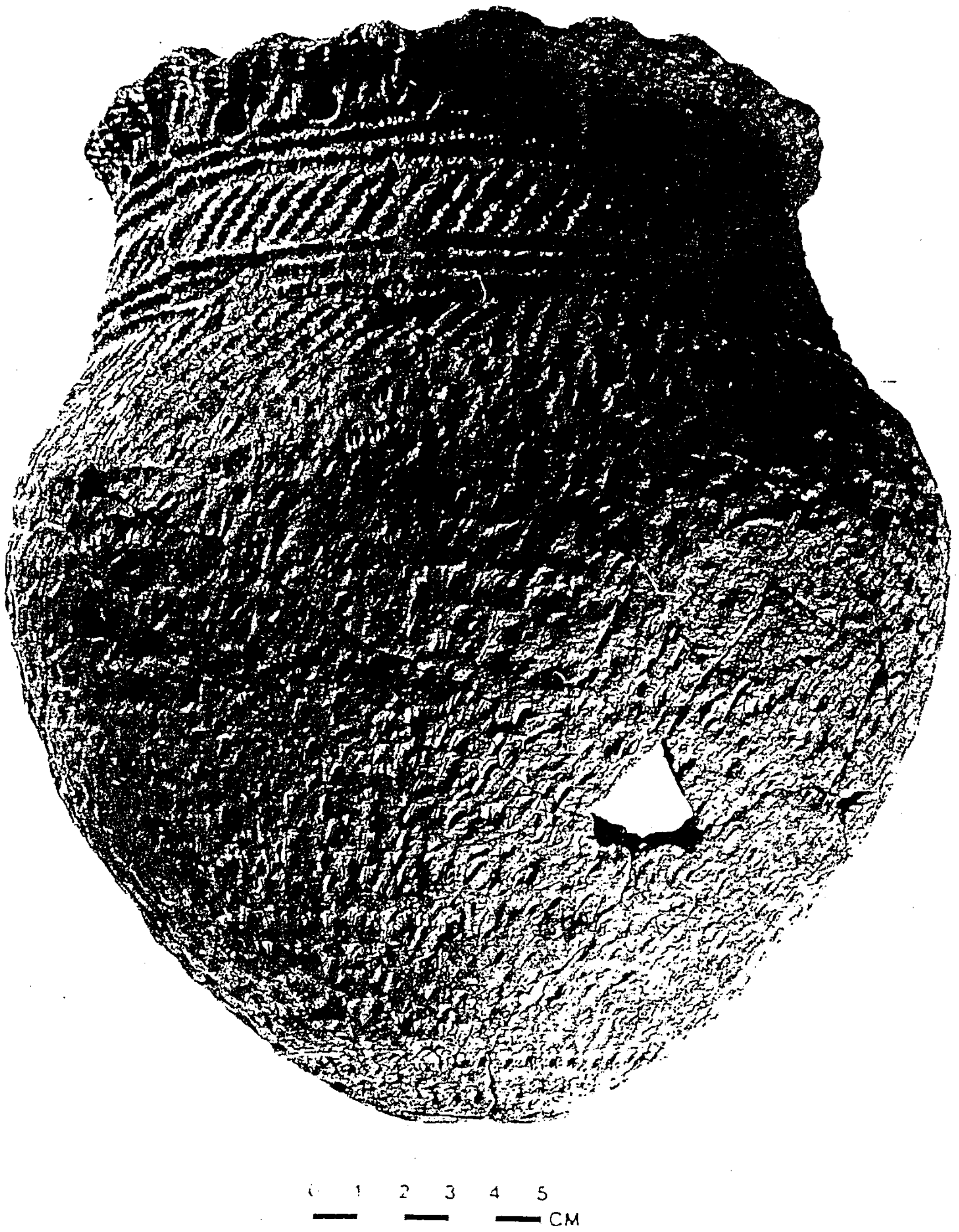

Figure 6: Princess Point Ceramics, Level 3.
Vessel 16: Cord-wrapped stick on exterior, lip, interior (exterior 5 bands).
Exterior punctates, scalloped lip.

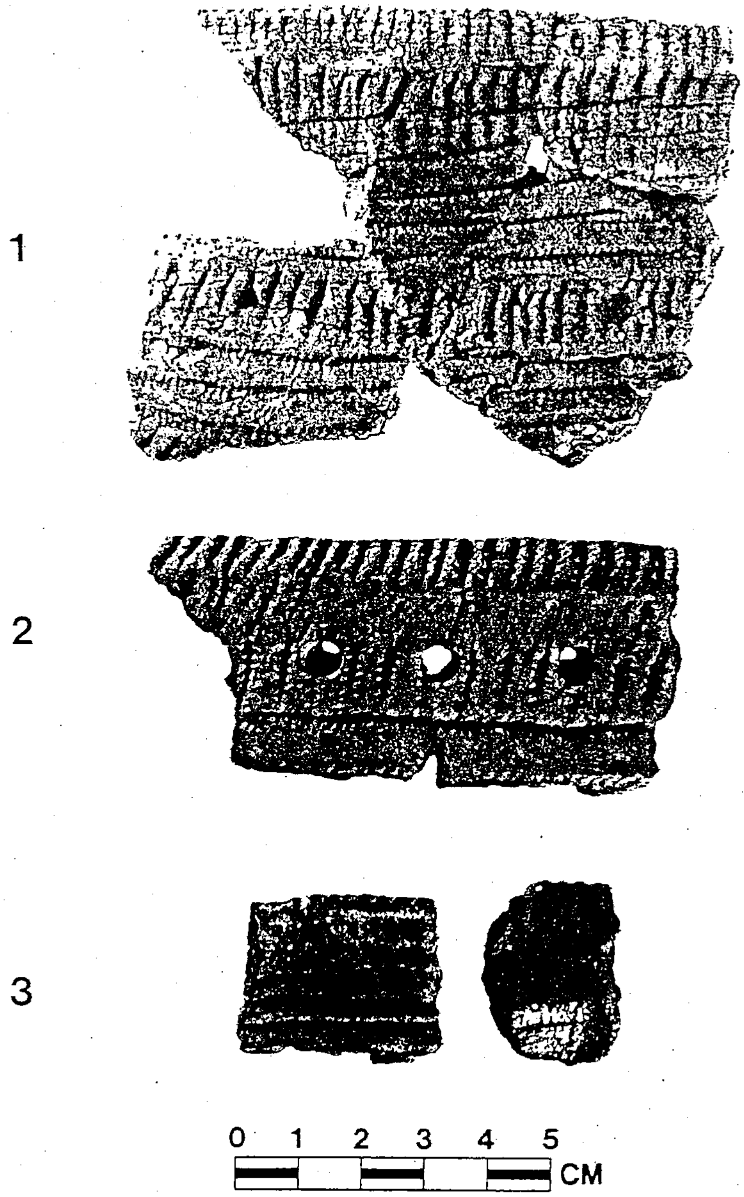

Figure 7: Princess Point Ceramics, Level 4.
1- Vessel 40: Cord-wrapped stick on exterior, lip interior (5 bands).
2- Vessel 41: Cord-wrapped stick on exterior, lip, interior (3 bands). Exterior punctates.
3- Vessel 42: Cord-wrapped stick on exterior, lip, interior (3 rows of cord-wrapped stick punctates on exterior). Interior punctates.

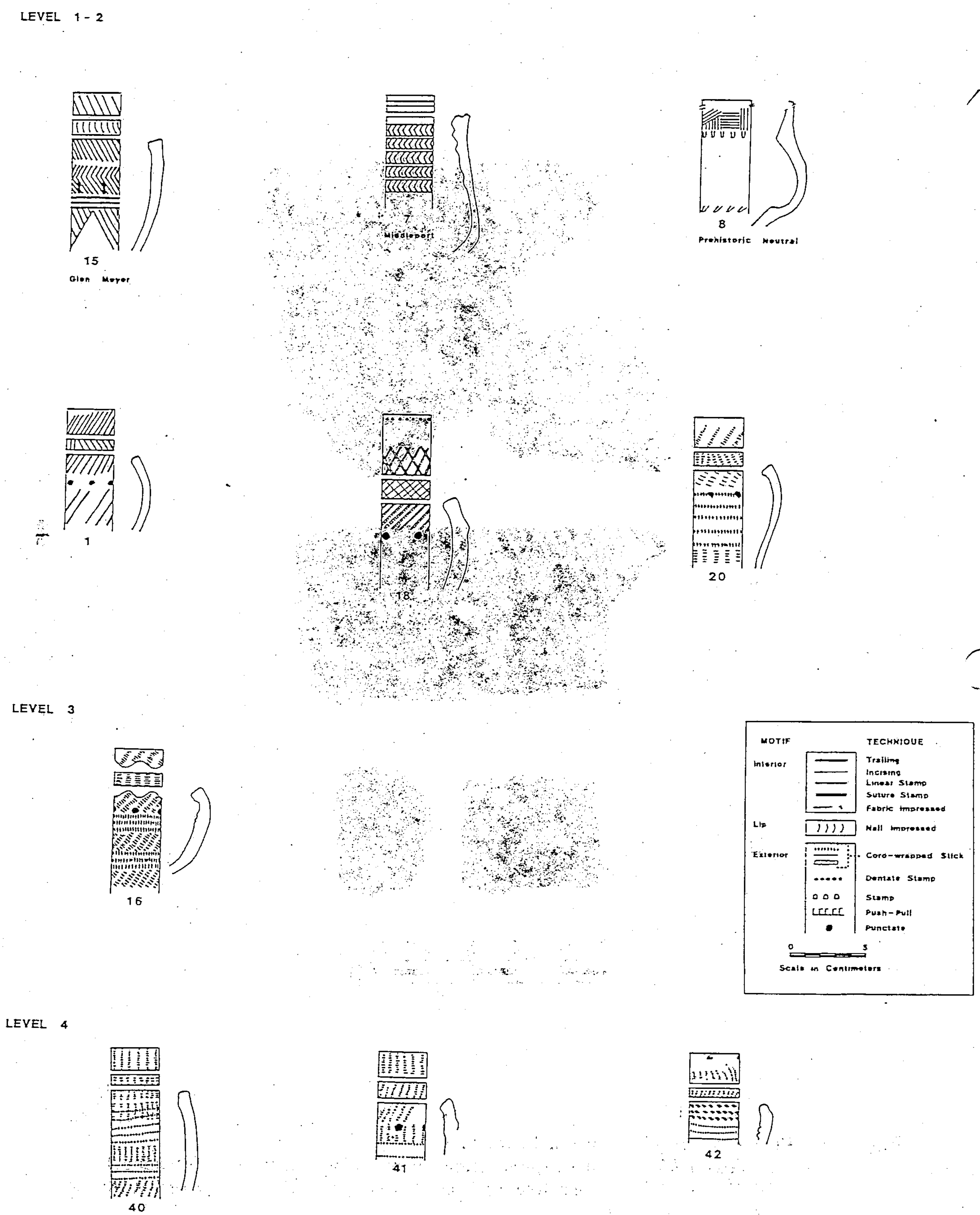

Figure 8: Schematic Representation of Decoration Motif and Technique for Ceramic Vessels Illustrated from the Varden Site.

Table 1 presents the results from the dating process. The Conventional Date (before present) was calculated based on the original Libby half-life of 5568 years. The 13C/12C ratio was also assumed to be -25± 2 o/oo. The resulting Conventional Date is presented with a 1 sigma error factor. Because the concentration of atmospheric 14C has not been constant over time, it is necessary to calibrate the conventional dates to Corrected or Calibrated Dates. The calibration curve presented in Klein et al (1982) is used for this purpose. Not only does this calibration correct for radiocarbon fluctuations but it corrects for the Libby half life error as well. Using the Klein curve also maintains consistency with Timmins' (1985) recent study on Iroquoian radiocarbon dates.

Using any source other than wood charcoal leads to problems due to isotopic fractionation. Trees, and most other plants, have a relative 13C concentration which averages to -26.5 o/oo (Van der Merwe and Vogel 1978), whereas maize has a 13C concentration average of -12.5 o/oo. These plants take up 13C/12C ratios at specific rates due to different photosynthetic pathways (ie., C-3 and C-4 pathways, respectively [Browman 1981: 268]). Further fractionation occurs when plants are consumed by animals (Browman 1981: 268), and the resulting ratio can differ according to which part of the animal is measured.

With the above in mind, the carbon crusts removed from pottery for radiocarbon processing could not have been assumed to be the remains of C-3 plants. Therefore, these samples were submitted to Dr. Henry Schwarcz, at McMaster University, for carbon isotope analysis. These samples, along with a further seven carbon scrapings from other vessels, resulted in an average 13C/12C ratio of -23.77 o/oo, with a range of -26.15 o/oo to -22.22 o/oo. The three carbonized samples which were then dated, when considered separately from the other seven scrapings, give an average ratio of -24.46 o/oo, with a range of -23.04 to -25.79 o/oo. These differences from the assumed d13C-value are so minimal that it can be safely presumed the calculated dates were not affected by the differences.

From the seven resulting dates two can be readily dismissed. RIDDL# 119 (473 ±159 B.C.) and RIDDL# 312 (A.D. 1673 ± 139) are apparently too early and too late, respectively. As mentioned previously, further material from the RIDDL# 119 sample source was resubmitted, with a resulting date of A.D. 675 ±118 (RIDDL# 311). This date is associated with material from site Level 4, as was the RIDDL# 118 sample, which returned a date of A.D. 418 ±184. The three samples from Level 1-2 resulted in dates of A.D. 593 ±89 (RIDDL# 115), A.D. 918 ±164 (RIDDL# 116) and A.D. 1138 ±134 (RIDDL# 117). Averaging the dates from similar levels is not recommended when following Long and Rippeteau's (1974) averaging criteria.

Discussion

RIDDL# 115 (A.D. 593 ±89) seems to be too early for its association - that is, Vessel 1, Features 10 and 11 from Level 1-2. As Wright has pointed out in a recent article, "Although the electrostatic particle accelerators will markedly reduce the sample size requirements this advatage [sic] will have to be tempered by the potential massive effect of minute quantities of contamination" (1985: 63). It is possible that the errant date for RIDDL# 115 was a result of just such a minute contaminant.

RIDDL# 116 (A.D. 918 ±164) and RIDDL# 117 (A.D. 1138 ±134) are both acceptable for Varden if they are viewed as representing different occupations within levels 1-2, which is not too unlikely. The earlier of these two dates falls between the calibrated dates of A.D. 830 ±75 and 1050 ±65 for Porteous and Van Besien, respectively (Timmins 1985: 70-72). Seriation of the Varden rims from this component are more similar to those recovered from Porteous than from Van Besien, suggesting that Stother's (1975) averaged date of A.D. 912 ±49 for Porteous may be more acceptable than the date of A.D. 830 ±75 calibrated by Timmins. Accepting the date of A.D. 912 for Porteous would also place this stylistically later site after the four Princess Point sites which Timmins has calibrated to the A.D. 875 ±100 range (1985: 80). The other date of A.D. 1138 ±134 could easily represent a Glen Meyer occupation. This date fits well with two dates of A.D. 1135 ±55 and 1150 ±55 (Timmins 1985: 73), derived from the Glen Meyer component at the Bruce Boyd site, located near Long Point (Spence et al 1978).

RIDDL# 118 (A.D. 418 ±184) and RIDDL# 311 (A.D. 675 ±118) were derived from sources located virtually at the same depth (ie. 63 and 65 centimeters, respectively). The date of A.D. 675 is acceptable for early Princess Point, however the A.D. 418 date is too early, even when compared to the A.D. 510-530 MASCA corrected date derived from the Mohawk Chapel site (Fox 1984). The date of A.D. 418 was derived from wood charcoal, which may suggest that this earlier than expected date tells us more concerning the age of the tree (c.f. Browman 1981) rather than the cultural event associated with the burning of that tree. This error may also explain the earlier than expected date from Mohawk Chapel which was also derived from wood charcoal. The A.D. 675 date from the earliest component at Varden also agrees with Stothers' estimate that the Early Princess Point phase "...date[s] to the period between about 600 and 750 A.D." (Stothers 1977: 113).

Acceptance of the A.D. 918 date for the Varden component most closely contemporaneous with Porteous, along with the A.D. 912 date for Porteous, supports acceptance of most Pickering radiocarbon dates at their face values, including the Auda site date of A.D. 905. In turn, Wright's (1966) time estimates for Glen Meyer and Pickering developments still present a valid chronology from which to work.

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Both the Ontario Heritage Foundation and the Canada Summer Student Employment Programme provided funds for transportation, supplies, crew, and analyses. The Canadian Wildlife Service assisted in many of the logistics. Drs. Erle Nelson and John Vogel provided the radiocarbon dates, and Dr. Henry Schwarcz provided analysis of the carbon matter.

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NEWS FLASH!!

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Fortunately, there are some advantages to having your newsletter sent out behind schedule! As this newsletter was going to the presses, an event occurred which should be passed on to the membership. At our annual business meeting on December 13th, Bob Pearce volunteered to serve as the Chapter's secretary for the 1987 year. We gratefully accept his offer and welcome him aboard!

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